



INDUSTRIAL LIFT TRUCK (FORKLIFT) PROGRAM

Program: Industrial Lift Truck (Forklift)

Facility: Waimanalo Gulch Sanitary Landfill

Facility Location: 92-460 Farrington Highway, Kapolei, HI 96707

PURPOSE

This program defines the safety requirements and responsibilities for operating forklifts and powered industrial trucks. Safe use of industrial trucks prevents injuries, property damage, and excessive maintenance.

The powered industrial trucks program contains method for complying with company and regulatory requirements and explains the who, what, when, where, and how of implementing the powered industrial trucks program.

Nameplates and Markings

- Label, or identify with a marking, all powered industrial trucks approved in a nationally recognized testing laboratory (DS, DY, EE and EX).
- Maintain all nameplates in legible condition and ensure they are firmly affixed to the powered industrial truck.
- If the powered industrial truck is equipped with front-end attachments other than factory installed attachments, which is approved by the manufacturer, have the truck marked to identify the attachments and show the approximate weight of the truck and attachment combination.

Inspections

- Inspect all powered industrial trucks before placing them in service.
- Do not place a truck into service if the truck inspection shows any condition that could adversely affect the safety of the vehicle.
- Perform an inspection of each powered industrial truck at the start of each work shift. The pre-operation inspection should determine the condition of the vehicle or mobile unit before operation by the next employee. Any damage must be noted and reported to the supervisor.
- Document all inspections. Inspect the controls, brakes, tires, load-engaging mechanism; lift systems, steering mechanism, lights, horn, oil and water. Keep an inspection and repair record for each truck.



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- Safely move any powered industrial trucks to an out of the way, safe location until repaired, and label it “Out-of-service, do not operate”. Caution: Moving a vehicle with an identified brake problem could be a safety issue.
- Inspect each industrial truck before each shift. Report and correct any defects as needed before using again.

Training

Train employees expected to operate a powered industrial truck, forklift, and hand-powered trucks. Establish a facility training program to train and certify powered industrial truck operators in the safe operation of powered industrial trucks and forklifts.

The following is a list of required subjects to cover in employee/operator training that shall consist of formal classroom instruction, practical instruction (instructor demonstrations) and practical exercises:

- *Truck related topics shall include:*
- Operating instructions, warnings and precautions for the type of truck used.
- Differences between the truck and an automobile.
- Truck controls and instrumentation, where located and how they work.
- Engine or motor operation.
- Steering and maneuvering.
- Visibility including restrictions when loaded.
- Fork and attachment adaptation.
- Vehicle capacity and vehicle stability.
- Vehicle inspection and maintenance that the operator must perform.
- Refueling, charging or recharging batteries.
- Operating limitations and other instructions or warnings peculiar to the vehicle.
- Work related topics.
- Surface conditions where the vehicle will be operated.
- Composition and stability of loads to be moved.
- Load manipulation, stacking and unstacking.
- Pedestrian traffic in the vehicle operating area.
- Narrow aisles or other restricted areas.
- Hazardous areas of operation.
- Ramps and other sloped surfaces.
- Environments where exhaust gases could build-up.
- Other unique or potentially hazardous environments.

In addition the requirements of 29 CFR 1910.178 must be covered in the training.

Supervisor training should cover the following:



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- Employee/operator training program.
- Attention to clearances, load restrictions, additional safety factors.
- Reporting of industrial lift truck problems.

Evaluate and certify employees upon completion of training. Provide written training certification that includes the name of the operator, the date of training, the date of the evaluation, and the name(s) of the person performing the training and evaluation.

Refresher Training

Refresher training shall be provided to the operator when:

- The operator is observed operating in an unsafe manner.
- The operator is involved in an accident or near-miss incident.
- An operator evaluation reveals deficiencies in operating techniques, skills or practices.
- The operator is assigned a different type vehicle.
- Workplace conditions change so as to affect the safe operation of the truck.

Out of Service Criteria

Take any powered industrial truck out of service that is found to be in need of repair, defective or in any way unsafe, until it has been restored to a safe operating condition. “Out of Service” criteria include items affecting the safety of the truck (for example, non-functional back-up alarms, broken rollover bars or worn brakes). Lock or tag the truck out of operation.

Maintenance

- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, take it out of service and label “Out-of-service” until it has been restored to safe operating condition.
- Ensure that all repairs are made only by facility authorized personnel.
- Ensure that any repairs to the fuel and ignition systems of powered industrial trucks are conducted only in locations designated by the facility safety coordinator for these types of repairs.
- Disconnect the battery before making electrical system repairs to the trucks.
- Replace any parts only with parts meeting the safety requirements of the original part.



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- Do not provide additional counterweighing of fork trucks unless approved by the powered industrial truck manufacturer in writing.
- When the temperature of any part of any powered industrial truck is found to be in excess of its normal operating temperature, remove the vehicle from service and tag “Out-of-service”. Do not return it to service until the cause of the overheating has been eliminated.
- Keep powered industrial trucks in a clean condition; free of dust, excess oil, and grease.

Seat Belts

Equip all vehicles that have rollover bars with seat belts and if it is a modification to install the seat belts, obtain manufacturers approval in writing. It is required that seat belts be worn at all times when operating a forklift or powered industrial truck equipped with seat belts.

Powered Industrial Truck Operations

Follow these safety requirements:

1. Do not allow persons to stand or pass under the elevated portion of any truck, loaded or empty.
2. Do not permit unauthorized personnel to ride on powered industrial trucks.
3. Set the forks to the maximum possible spread for each load to be carried.
4. Keep arms or legs inside the running lines of the truck. Do not place arms and legs between the uprights of the masts.
5. When a powered industrial truck is left unattended, fully lower the load engaging means, neutralize the controls, shut the power off, and set the brakes. It is a recommended practice to chock the wheels when the powered industrial truck is parked on an incline. A powered industrial truck is considered to be “unattended” when the vehicle is in view of the operator but the operator is more than 25 feet from the vehicle, or whenever the operator leaves the vehicle, and it is not in his or her view.
6. Keep at least two feet away from the edge of the ramps or platforms.
7. When loading and unloading a trailer, set the brakes (if coupled to the truck), and place chocks under the rear wheels to prevent the trailer from moving.
8. When the trailer is not coupled to the truck, use fixed jacks to support the trailer and prevent upending during loading or unloading.
9. Ensure that there is sufficient headroom under overhead installations, lights, entranceways, etc.
10. Use an overhead guard, where overhead lifting is performed, to protect against falling objects. The guard offers protection from impact from small packages, boxes, bagged material, etc.



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11. Use a load backrest extension to minimize the possibility of part, or the entire load, falling rearward.
12. Slow down and sound the horn at cross aisles, corners and other locations where vision is obstructed.
13. Make certain the back-up alarm is in good, working order.
14. When the load being carried forward obstructs the view, turn around the forklift and travel with the load trailing.
15. Always look in the direction of travel.
16. Ascend or descend grades slowly. When ascending or descending slope grades in excess of ten percent, drive loaded trucks with the load upgrade. On all grades, tilt back and raise the load and load engaging means only as far as necessary to clear the road surface.
17. Properly secure dockboards or bridge plates before driving over them.
18. Slow down for wet and slippery floors.
19. Establish speed limits, where necessary, and post speed limit signs.
20. Define and mark designated travel routes.

Loading

Handle only stable and safely arranged loads. Exercise caution when handling off-center loads that cannot be centered. Loads must not exceed the rated capacity of the truck. When carrying loads, place the load engaging means under the load as far as possible and carefully tilt the mast backward to stabilize the load. Carry the load as close to the floor as possible. When traveling with a load, start and stop trucks gradually, and always look around before starting to move.

If loading or unloading a trailer connected to a vehicle, all of the following precautions must be taken:

- Turn the vehicle engine off.
- Set the brakes of highway trucks and chock the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Set brakes and put wheel blocks in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semi trailer during loading or unloading when the trailer is not coupled to a tractor. Check the flooring of trucks, trailers, and railroad cars for breaks and weakness before they are driven onto.
- Secure dockboard or bridgeplates before they are driven over.
- Carefully and slowly drive over dockboard or bridgeplates and never exceed their rated capacity.
- Handle only stable or safely arranged loads. Use caution when handling off-center loads, which cannot be centered.
- Handle only loads within the rated capacity of the truck.

Also take at least one of the following precautions:



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- Place the vehicle's ignition key in the possession of the person boarding the vehicle or trailer.
- Place the vehicle's ignition key in a "lock box" and give the person boarding the vehicle possession of the "lock box" key.
- Actively secure the vehicle or trailer to a loading dock with a device that prevents powered or unpowered vehicle movement. The person boarding the vehicle or trailer must solely control the device. Note: if this option is used, tire chocks are not required.

Hazards

When operating lift trucks, the primary danger is colliding or overturning the truck. Always be aware of obstacles in the path of the truck, especially when backing up. Make sure there is enough clearance between the truck and other objects. When on a ramp or platform, stay at least two feet from the edge. Lift trucks can be overturned if they are not handled correctly on steep grades or if they are driven off the sides of platforms or ramps. Movement or collapse of bridge plates or dockboards causes another hazardous condition.

Ensure that bags, cartons, boxes or other articles are secure. If these items fall from lift vehicles, they can cause severe injuries to the truck drivers and pedestrians, and financial loss due to damage.

Battery Charging

Only trained and authorized employees may change and/or charge batteries.

Wear acid-resistant clothing, acid-resistant gloves, goggles and a face shield when changing the electrolyte solution in the battery.

Charge or install batteries only in areas designated for this purpose. These areas have facilities for flushing and neutralizing spilled electrolytes, fire protection, protecting charging apparatus from damage from lift trucks, ventilation to reduce the potential for hydrogen gas buildup, and emergency drenching facilities.

When charging batteries, require these safe work practices:

- Put on personal protective equipment.
- Properly position lift trucks, and apply brakes before charging.
- Use a carboy, tilter or siphon for handling the electrolyte.
- Pour acid into water. Do not pour water into acid.
- Open the battery compartments/covers to dissipate heat.
- Ensure that the vent caps are functioning.
- Designate the charging area as a "No Smoking" area and post signs.
- Take precautions to prevent open flames, sparks, or electric arcs in the charging area.
- Keep tools and other metallic objects away from the top of uncovered batteries.



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Gasoline, Diesel and Liquefied Petroleum Gas Vehicles

Gasoline, diesel or liquefied petroleum gas-powered trucks have the potential to catch fire if repaired or refueled incorrectly. Only trained authorized personnel are permitted to refuel or repair these trucks.

Powered industrial trucks that use gas or diesel have internal combustion engines. The exhaust from combustion engines contains carbon monoxide, which is a chemical asphyxiant. Only use this equipment in areas where there is good ventilation.

Fuel Storage

The storage and handling of liquid fuels such as gasoline and diesel fuel must be in accordance with NFPA Flammable and Combustible Liquids Code (NFPA No. 30-1969).

The storage and handling of liquefied petroleum gas fuel must be in accordance with NFPA Storage and Handling of Liquefied Petroleum Gases (NFPA No. 58-1969).

Powered Hand Trucks

There are two types of powered hand trucks: low-lift and high-lift. Low-lift trucks are used only for moving the material horizontally. Powered hand trucks are operated by electric motors. Only authorized personnel may charge batteries. Recharge the batteries only at a fixed battery charging facility. See the section on battery charging for safety instructions.

The hazards of operating powered hand trucks include:

- Contact with the powered hand truck's moving parts, such as wheels and lifting mechanisms.
- Loads falling due to incorrect operation.
- Collision between the powered hand truck and fixed objects, other trucks, or employees.
- Collision with a person caused by the operator riding the powered hand truck.

Follow these safety practices when operating the powered hand trucks:

1. Lead the truck from either the right or left side of the handle, and face the direction of travel.
2. Walk ahead of the truck, except when it must be run close to a wall or other obstruction, or when driven down an incline. In such instances, operate the truck in reverse and walk behind it, facing the direction of travel.
3. Back the truck into a confined location to avoid being caught between the truck and the walls.
4. Give pedestrians the right of way at all times.



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5. To prevent collisions, come to a full stop at blind corners, doorways and aisle intersections, and sound the warning device.
6. Operate the truck at a safe speed for existing conditions. It should never be operated at a speed greater than that of a normal walk.
7. Maintain a firm grip on the operating handle, keeping hands free of grease and water.
8. Never ride the truck unless it is specifically designed for the operator to ride.
9. Never permit other employees to ride the truck.
10. When going uphill on a ramp or slope, always travel with the load upgrade so it does not spill.
11. Keep loads low so the operator's view is not obstructed.

Operator Safety Instructions

- Never use the equipment without instructions. See machine signs (decals) Operation & Maintenance Manual and Handbook.
- Fasten seat belt snugly. Always keep feet on the pedals when operating loader.
- Never use equipment as man lift or elevating device for personnel.
- Never use equipment without operator cab with ROPS and FOPS approval.
- Do not use equipment in atmosphere with explosive dust or gas or where exhaust can contact flammable material.
- Never carry riders.
- Keep bystanders away from work area.
- Always carry bucket or attachments as low as possible. Do not travel or turn with lift arms up.
- Load, unload and turn on flat level ground.
- Never exceed rated operating capacity.
- Never modify equipment.
- Use only attachments approved for the model loader.
- Never leave loader with engine running or with lift arms up. To park, engage parking brake and put attachment flat on the ground.

Prepare for Safe Operation

1. Check the Safety Equipment
 - Falling Object Protective Structure (FOPS).
 - Rollover Protective Structure (ROPS).
 - Seat Belts.
 - Operator Seat Bar(s).
 - Side Shields, Screens or Cab.
 - Grab Handles.
 - Lift Arm Restraining Device(s).
 - Lights.
 - Anti-skid Tread/Steps.



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Safety Signs.

Horn.

Guards.

Back-up Alarm.

Fire Extinguisher.

2. Never remove or disconnect any safety device.

3. Check the Machine

Check for broken, missing or damaged parts. Make necessary repairs.

Check the tires for cuts, bulges and correct pressure. Replace badly worn or damaged tires.

Check the parking brake for proper operation.

Perform all maintenance procedures outlined by the manufacturer of the machine.

Check the hydraulic system. Have any leaks repaired.

4. Clean Machine

5. Windshield, Lights and Safety Signs.

6. Operator's Area.

7. Steering levers.

8. Pedals steps.

9. Grab handles.

10. Remove snow, ice, mud, oil and grease.

11.

12. Use Caution when fueling

13. Don't over fill tank.

14. Use correct type and grade of fuel.

15. Don't fill the tank with the engine running.

16. Know the Working Area

17. Inspect the surface, ground, and floor levels.

18. Check for hidden obstacles, weak spots, and wet floors.

19. Know Clearances

20. Overhead doorway.

21. Aisles.

22. Weight limitations of machine, ramps, and floors.

23. Rules Of the Road

24. Slow moving vehicle emblem in place.

25. Check reflectors.

26. Mount Safely

27. Maintain a three-point contact with the steps and grab handles provided.

28. Face the machine.

29. Never jump on or off the machine. Never attempt to mount or dismount a moving machine.

Definitions

Approved Truck or Approved Industrial Trucks: A truck that is listed or approved, under nationally recognized testing standards, as fire safe for its intended use.



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Powered Hand Truck: Any self-propelled truck that is controlled by a walking operator and is used to lift, carry, stack or tier material.

Driver: An employee trained to properly operate a powered industrial truck, and trained to follow safety procedures and avoid hazards while operating the truck.

Load Engaging Means: The part of the powered industrial truck that picks up the load.

DS: Diesel-powered units with safeguards on the exhaust, fuel and electrical systems against inherent fire hazards.

DY: Diesel-powered units with safeguards on the exhaust, fuel and electrical systems against inherent fire hazards. In addition these units do not have any electrical equipment, including the ignition, and are equipped with temperature limitation features.

EX: Electric-powered units with specially designed, constructed and assembled electrical fittings for use in atmospheres containing flammable vapors and dusts and under certain conditions, fibers.

EE: Electric-powered hand trucks with safeguards against inherent fire and electrical shock hazards. In addition, these units have enclosed electrical systems to prevent emission of hazardous sparks and to limit surface temperature.

Powered Industrial Trucks: Specialized industrial trucks powered by electric motors or internal combustion including, but not limited to, fork trucks, tractors, platform lift trucks, and motorized hand trucks.